

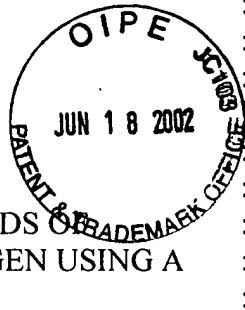
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Boardman et al.

Serial No.: 09/735,009

Filed: December 12, 2000

For: SYSTEM AND METHODS OF
PRODUCING HYDROGEN USING A
NUCLEAR REACTOR



Art Unit: 3641

Examiner: R. Palabrica

#17 / Amatt
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Bentley
6/29/02

AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

In response to the Office Action dated March 19, 2002, please amend the above-identified patent application as follows.

IN THE SPECIFICATION

At page 2, please delete the paragraph starting on line 11 and replace with the following paragraph.

B/

In one embodiment, the topping heater is a gas fired heater. A portion of the oxygen and hydrogen produced by the high temperature water cracking system is used as fuel in the topping heater. The exhaust from the gas fired topping heater is directed to a regenerative heat exchanger. The regenerative heat exchanger is located in the feed water supply line and is positioned between the steam generator and the topping heater. The exhaust from the gas fired topping heater is then directed to a second regenerative heat exchanger which is used to increase the temperature of a portion of the feed water that has been converted to steam by the steam generator before it enters a steam turbine generator assembly for generating electricity.